

Listing of Claims:

1. (Currently amended) A method for ~~use in~~ managing resources in networking on a gateway platform, the method comprising:

adding a field to an operating system kernel software procedure stored in a computer readable medium of the gateway platform, the field referencing a virtual router context;

modifying the operating system kernel stored in the computer readable medium to provide heritability of the field referencing a virtual router context in at least one of a process and a socket; and

modifying the operating system kernel to designate a lead operating system kernel for a distributed host, wherein the distributed host includes a plurality of processors in the gateway platform that are assigned one Internet Protocol (IP) address so that the plurality of processors implement a single IP host, and wherein the lead operating system kernel performs tasks for the distributed host as a whole.

2-20. (Cancel)

21. (Previously presented) The method of claim 1, further comprising providing an IP host that is compatible with existing protocols.

22. (Currently amended) The method of claim 1, further comprising running separate operating system instances on ~~a~~ the plurality of processors residing on the network device gateway platform, which implement a single IP host.

23. (Currently amended) ~~An apparatus~~ gateway platform residing in a communication network comprising:

a plurality of processors residing in the gateway platform ~~apparatus~~ and implementing a distributed host, wherein the distributed host includes a plurality of processors in the gateway platform that are assigned one Internet Protocol (IP) address so that the plurality of processors implement a single IP host, and wherein individual processors of the plurality of processors determine responsibility for processing packets received at each processor; and

at least one computer readable medium, in communication with at least one of the plurality of processors, storing an operating system instance whose kernel includes a field to

indicate an appropriate virtual routing context within the apparatus to handle an incoming data packet, wherein the field is heritable in the virtual routing context.

24. (Currently amended) The gateway platform~~method~~ of claim 23, ~~further comprising providing an~~ wherein the single IP host ~~that~~ is compatible with existing protocols.
25. (New) The method of claim 1, wherein the operating system is a Linux operating system.
26. (New) The method of claim 1, wherein the gateway platform supports voice and data services on one or more mobile wireless networks.
27. (New) The method of claim 1, further comprising modifying packet ingress processing code for a protocol to determine the virtual router context of a ingress packet.
28. (New) The method of claim 1, further comprising modifying packet egress processing code for a protocol to select a routing table based on the virtual routing context of the socket sending the packet.
29. (New) The gateway platform of claim 23, wherein the distributed host runs application software written for a single processor host implementation.
30. (New) The gateway platform of claim 23, wherein at least a two of the plurality of processors run separate operating system instances.
31. (New) The gateway platform of claim 30, wherein the distributed host provides the operating system instances bindings to different sockets, which are assigned the same IP address.
32. (New) The gateway platform of claim 23, wherein the gateway platform supports voice and data services on one or more mobile wireless networks.
33. (New) The gateway platform of claim 23, further comprising a network interface in communication with the kernel that tags a packet with a context number.
34. (New) The gateway platform of claim 23, wherein the kernel uses the context number of a packet in order to deliver a packet to a process.